GTI and WiMAX Forum Strategic Partnership - FAQ

February 2014

Question: What is the purpose of the alliance between GTI and WiMAX Forum?

The WiMAX Forum® and the Global TD-LTE Initiative (GTI) have signed a Memo of Understanding (MoU) to join forces in the advancement of several strategic initiatives for their members. They share a goal to build a robust and harmonized TDD ecosystem, while continuing joint investigations of TDD system commercial operations for the global market. This collaboration, through the WiMAX Advanced standard, will pave the way for global TDD operators to fully leverage a rich portfolio of TDD ecosystems, in either WiMAX or LTE TDD.

Question: How do the individual missions of each group overlap?

GTI and the WiMAX Forum share a commitment to serve the 4G industry and their operator members, helping to advance the TDD ecosystem through the adoption of standards, certifications, interoperability testing, and more. About each of the organizations:

- WiMAX Forum® – Formed in June 2001 to promote conformity and interoperability of 4G wireless broadband standards, the WiMAX Forum has developed an evolution roadmap to harmonize and converge multiple broadband wireless access technologies. Their core WiMAX operator community currently serves a customer base of over 30 million subscribers.
- Global TD-LTE Initiative (GTI) – Founded by leading international mobile network operators in 2011 to meet the demands for growing mobile broadband, GTI is helping drive the early adoption of LTE TDD; as well as promote the convergence of LTE TDD and LTE FDD in order to maximize economies of scale.

Question: What is WiMAX Advanced™?

WiMAX Advanced (Release WiMAX 2.2) is the most recent network standard that is suitable for multi-technology TDD applications. The WiMAX Forum has been working with leading operators and ecosystem vendors to develop this initiative to streamline interworking between WiMAX and LTE TDD. Commercialized last year, the standard was approved by the ITU. It leverages the unique advantages of the TDD spectrum along with other key attributes, such as Carrier Aggregation, 256QAM, and 8x8 MIMO, with a goal to reach mobile downlink speed of 1 Gbps by 2017.

Question: What are some key examples of WiMAX Advanced networks?

Operators in mature markets with access to additional spectrum have already begun deploying LTE TDD networks in parallel with their existing WiMAX networks. In Japan, UQ Communications has also implemented plans to leverage newly awarded 2.5 GHz spectrum to upgrade its existing network from WiMAX to WiMAX 2+ (WiMAX Advanced), enabling the support of TDD LTE devices. UQ launched WiMAX 2+ service on Oct 31, 2013[1].

On October 4, 2013, the Korean MSIP (Ministry of Science, ICT and Future Planning) outlined a policy for WiBro (WiMAX) operators to upgrade to TDD LTE[2]. In addition to the technical merits, the policy is based on the premise that the existing 1 million plus WiBro subscribers transition to WiMAX 2+ in the future. The ministry is providing support to enable WiBro services, which are serving special purposes in such fields as national defense, to co-exist in a niche market, while expanding to overseas markets by means of network establishment and technological development.

As of Q1 2013, almost every one of the 477 WiMAX operators worldwide has embraced the WiMAX Advanced initiative based on IEEE 802.16™. With the success of WiMAX 2+ for UQ in Japan, the global TDD LTE transition presents a substantial business opportunity for equipment and system providers. The TDD LTE device market is growing at a rapid pace. According to industry analysts, China Mobile alone will procure more than 50 million TDD LTE terminals in 2014, including approximately 40 million smartphones and 10 million data cards.

Question: Overall, how will global operators benefit from this alliance?

GTI and the WiMAX Forum will work to foster the harmonization of WiMAX Advanced with LTE TDD, which will enable operators to leverage economies of scale for TDD ecosystems. This will propel compatible TDD technology into an internationally competitive mainstream technology. Providers will be able to more easily support their subscriber base, offering customers both fixed and mobile devices.

Many operators in the 2.3/2.5 GHz frequency, as well as some in the 3.5, have consistently asked for an ability to expand their device ecosystem to include the developing LTE ecosystem. Operators must support a transition to LTE at a rate that supports their business models, based on their existing infrastructure, topology and economics. Equipment manufacturers have been working with the WiMAX Forum to establish a standard that incorporates LTE into the mature product lines, and enables operators to run both WiMAX and LTE concurrently. Now with this broader partnership, all operators, new and established, can be better fit to offer broadband services as the WiMAX Advanced technology ecosystem matures.

As part of this joint effort, the organizations will facilitate trial/testing of interoperability, seamless hand over between WiMAX Advanced and LTE TDD, while driving the end-to-end products' readiness and compatibility. These activities will ultimately strengthen cooperation between global telecom operators and technology vendors. With this partnership, the providers can have the knowledge that their technology is flexible enough to address the market dynamics of the next 3 -5 years.

The new relationship will also serve as a foundation to accelerate the advancement of several broad initiatives, including the hosting of joint educational events globally, product certification for specific markets and shared working group participation.

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[1] http://www.uqwimax.jp/english/news_release/201310301.html
[2] http://www.msip.go.kr/www/brd/m_211/view.do?seq=793